

1939 FIELD OBSERVATIONS OF BLACK ROOT OCCURRENCE

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In spite of the tremendous amount of laboratory research on blackroot fungi, no other disease except leaf-spot (blight) causes such widespread loss of acreage and tonnage in the Eastern Sugar Beet Area.

Even if we know every fungus by its first name it is still up to the beet-grower to know and to apply such cultural practices as will discourage its development and allow the crop to grow in a reasonably normal manner.

For this reason we started a survey of infested fields in 1939 with the intention of carrying the study along for such a term of years as is necessary to give us two basic items of information for our area:

1. What general and cultural conditions are likely to produce blackroot?
2. What cultural practices give the most promise of saving infested fields?

The results of this season's work are interesting but, of course, inconclusive. We are pleased to find that these observations coincide with those of Dr. G. H. Siegmund of Copenhagen, Denmark, and that they vary in only one or two points from those of Dr. Coons and Dr. Kotila of the United States Department of Agriculture.

Mr. G. H. Bernheisel of the Paulding Sugar Company made an excellent survey of conditions causing loss of acreage in 174 fields in their district (adjacent to two of our districts) this year. His observations coincide with ours almost perfectly as far as the two cover comparable data. He finds that blackroot occurs in almost equal amounts in beets following corn and in beets following legume hay crops. He finds also that it is practically useless to try to grow beets after beets or beets on wet, soggy ground.

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In Northwestern Ohio and Southern Michigan
In 143 Fields -- on 138 Farms in 4 Districts¹

<u>Factors</u>	<u>Distribution Data by Fields</u>
Soils:	Heavy 115, Light 15
Drainage:	Good 64, Fair 37, Poor 9, No tile 5
*Plowing:	Fall 64, Spring 62, Disc'd 12
**Planting:	Early 30, Medium 70, Late 32

¹Data was incomplete in some cases which causes the discrepancies in totals.
 *Fall plowing includes winter -- up to March 15.
 **Early -- up to May 5, Medium -- May 5 to 25, Late -- after May 24. Late plantings are largely re-plantings this year.